

APPENDIX A

PUBLIC COMMENTS AND DOE RESPONSES

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A. PUBLIC COMMENTS AND DOE RESPONSES

The Department of Energy (DOE) received 206 public review comments on the Spallation Neutron Source (SNS) draft Environmental Impact Statement (DEIS). These comments and the DOE responses to them are presented in this appendix.

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Chapter 1
Introduction

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CHAPTER 1

INTRODUCTION

DOE issued the *Draft Environmental Impact Statement: Construction and Operation of the Spallation Neutron Source* in December 1998. This document was made available for review by federal agencies; tribal governments; the states of Tennessee, New Mexico, Illinois, and New York; local governments; and the general public. DOE invited comments on the accuracy and adequacy of the DEIS and any other matters pertaining to environmental review of the document. The formal review and comment period extended from December 24, 1998 until February 8, 1999. DOE considered all comments submitted after the review and comment period.

DOE provided several different ways for reviewers to submit comments on the DEIS. These included public hearings, mail or courier service, telephone calls, facsimile, and electronic mail. DOE received a total of 206 public review comments.

This appendix to the Final Environmental Impact Statement (FEIS) contains the 206 comments received and the DOE responses to these comments. It consists of four chapters. Chapter 1 provides an introduction to the contents of this appendix and discusses the general methodology DOE used for documenting, considering, and responding to the review comments on the DEIS. Chapter 2 summarizes the principal issues of public concern collectively reflected by the comments and presents DOE's responses to these issues. The full texts of the comments on the DEIS are presented in Chapter 3. Chapter 4 contains DOE's written responses to these comments and the locations of textual changes in the FEIS that were made in response to the comments.

1.1. METHODOLOGY

Comments on the DEIS were recorded in comment messages, hearing transcripts, and hearing transcript attachments. The written comments were recorded in the comment messages, which include formal letters sent by U.S. mail or courier services, facsimiles, e-mail messages, and completed comment forms. DOE supplied the blank comment forms to persons attending the public hearings. The transcripts of telephone messages containing comments have also been included in the comment message category. The oral comments presented at the public hearings were recorded by court reporters, who produced verbatim transcripts of the proceedings. Comments are also contained in hearing transcript attachments, which are documents officially entered into the record of the public hearings. The full texts of these documents and the comments they contain are provided in Chapter 3 of this volume.

The texts of the comment messages, hearing transcripts, and hearing transcript attachments were reviewed to identify discrete comments and their topics. Most of these documents were found to contain multiple comments dealing with several topics of concern to reviewers of the DEIS. For tracking and response purposes, each of these comments was assigned an alphanumeric comment code (refer to Section 3.2).

DOE considered all comments to evaluate the accuracy and adequacy of the DEIS and to determine whether or not draft text needed to be revised. During these considerations, DOE gave equal weight to oral comments, written comments, comments received in public hearings, and comments received in other

ways. The comments were reviewed exclusively for their content and relevance to the environmental analysis contained in the DEIS.

A formal DOE response to each comment on the DEIS is included in Chapter 4 of this appendix. If revisions of the DEIS text have occurred in response to a comment, the affected sections of the text are indicated beneath the response.

Some commenters submitted comments that are not pertinent to the content, accuracy, or adequacy of the DEIS. DOE has responded by attempting to answer the questions and concerns voiced in these comments, but the text of the DEIS was not revised as a result of these comments. Some comments indicated simple agreement or disagreement with the proposed action or particular aspects of the environmental analysis in the DEIS. DOE acknowledged these comments in its responses, but these comments did not result in changes to the text of the DEIS.

Chapter 2
Principal Issues of Public Concern

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CHAPTER 2

PRINCIPAL ISSUES OF PUBLIC CONCERN

The texts of the 206 comments on the draft Environmental Impact Statement (DEIS) for the Spallation Neutron Source (SNS) were collectively analyzed to identify principal issues of concern to the public. As a result of this analysis, four major issues were identified. These issues are radioactive contamination of groundwater, selection of the proposed SNS site on the Oak Ridge Reservation (ORR), effects of the proposed action on research projects in the Walker Branch Watershed, and the need for a Mitigation Action Plan.

Each of the following sections in this chapter is devoted to one of the four issues of public concern. In each section, the issue is stated in the first paragraph, and it is followed by the formal DOE response.

2.1 RADIOACTIVE CONTAMINATION OF GROUNDWATER

Operation of the proposed SNS has the potential for neutron activation of soils in the shielding berm surrounding the linear accelerator and accumulator rings. This would result in the contamination of berm soils by radionuclides. A principal issue of concern to stakeholders is the potential for water infiltrating the berm soils to transport radionuclide contamination to saturated groundwater zones, especially those that are sources of potable water.

The key design element for shielding the linear accelerator and accumulator rings in the proposed SNS is an earthen berm. This berm would be designed to isolate the activation products generated by the SNS particle beam and to provide radiation protection for outside areas around the beam and ring tunnels. The berm would be constructed of compacted native soils and would be engineered to isolate activation products by minimizing the amount of water infiltrating the berm. The design incorporates a groundwater interceptor system to collect any water that might get through the engineered berm. This water would be sampled and analyzed for radionuclides. If any are found to be present, the water would be managed as low-level radioactive waste. Otherwise, the water would be released to the retention basin.

The FEIS analysis of radionuclide transport in berm soil is based on very conservative assumptions concerning dilution, groundwater travel times, and levels of radionuclides in the berm. Such conservatism was necessitated by uncertainties in the amounts of soil activation products in the berms and uncertainties about the groundwater at each of the proposed SNS sites. The results of this analysis present a bounding estimate of potential effects from the proposed action. This bounding estimate becomes the maximum design limit of the proposed SNS. If the need for additional groundwater protection is identified during design of the facility, an alternative berm design that would provide equal or better protection than is presented in the FEIS.

2.2 SELECTION OF THE PROPOSED SNS SITE ON THE OAK RIDGE RESERVATION

The DOE-Oak Ridge Operations Office has actively sought public input on the future use of ORR land. An Oak Ridge citizens advisory organization, the End Use Working Group, has recommended a set of final land use guidelines to DOE-ORO. One of these guidelines recommends the siting of additional

DOE facilities on brownfield sites instead of greenfield sites. Brownfield sites are previously contaminated and/or developed areas, whereas greenfield sites are natural, undeveloped areas. The proposed SNS site at ORNL is a 110-acre (45-ha) tract of undeveloped forest land near the top of Chestnut Ridge. Selection of this greenfield site instead of a brownfield site for the proposed SNS is an issue of concern among stakeholders in the Oak Ridge area.

The proposed SNS site at ORNL was chosen through a formal site-selection process. This process is described in a document entitled *Spallation Neutron Source, Oak Ridge National Laboratory Site Selection Report*. The entire text of this report is included in Appendix B of the FEIS.

The process of selecting the preferred site for construction of the SNS on the Oak Ridge Reservation was a two-phase process. In the first phase, the entire reservation was screened to eliminate areas that were not suitable for construction of the SNS. Brownfield and greenfield areas of the reservation were both included. One of the screening criteria was identification of areas of land within the ORR with waste area groupings, environmental restoration projects, or waste management areas. These areas were eliminated from consideration because they would require cleanup, with some attendant uncertainty on the extent of cleanup required, prior to excavation for the SNS foundations. This activity could increase worker exposure to radioactive and nonradioactive contaminants, and would require the disposal of material removed during cleanup in a licensed landfill. This could affect both the budget and schedule of the project. Working in a contaminated area could increase labor costs and disposal costs of the contaminated materials. Coordinating with the Environmental Management program for the cleanup of these areas may resolve the budget issue; however, long schedule delays may result. Coordination of this construction effort with the requirement of RCRA or CERCLA for cleanup of these areas could add a year or more to the construction schedule of the SNS. Siting the SNS in a waste management area could require cleanup of the area with its associated cost increases and schedule delays, and possibly the relocation of waste management activities. The result of this first phase was the identification of four candidate sites; however, none of these were brownfield sites.

The second phase consisted of a comparative evaluation of the candidate sites using specific site-evaluation criteria. One of the functional criteria was the avoidance of contaminated soils. One of the health and safety criteria was avoiding existing hazardous materials areas and waste areas (i.e., Waste Area Groups and RCRA sites). Again, these criteria were included to avoid the increased risk to construction workers and the increased costs and schedule delays associated with placing a large-scale construction project at a site with contaminated soils or hazardous materials.

2.3 EFFECTS ON RESEARCH PROJECTS IN THE WALKER BRANCH WATERSHED

The Walker Branch Watershed is an important research area located approximately 0.75 mi (1.2 km) east of the proposed SNS site at ORNL. It is one of the few sites in the world characterized by long-term, intensive environmental studies. Environmental monitoring and ecological research projects in the area are being conducted by the National Oceanic and Atmospheric Administration/Atmospheric Turbulence and Diffusion Division (NOAA/ATDD) and the ORNL Environmental Sciences Division (ESD). The proposed SNS site is located within a buffer zone designed to protect research in the watershed. During construction and operation of the proposed SNS, CO₂ emissions from vehicles and small sources may adversely affect this research. During SNS operations, CO₂ emissions from natural gas boilers would affect such research. Operational emissions of water vapor from the SNS cooling towers may also affect this research. The principal effects would be loss of data quality and comparability over time. These

potential effects on research in the Walker Branch Watershed are a principal issue of concern to stakeholders in the Oak Ridge area.

If the site at ORNL is selected for the SNS in the Record of Decision, DOE would investigate appropriate measures to mitigate the potential effects of the proposed action on environmental monitoring and ecological research in the Walker Branch Watershed. Two measures that would be evaluated for mitigation of the effects from CO₂ emissions would be the use of heat pumps or heat recovery from the cooling towers instead of natural gas boilers to heat the SNS. The use of electric or ultra-low-emission vehicles to shuttle workers from remote parking lots to the SNS would also be evaluated. Another potential mitigation measure for the effects of CO₂ and water vapor emissions could be moving the existing NOAA/ATDD meteorological monitoring tower to a new location less susceptible to emissions from SNS activities or building a new monitoring tower at this new location. The evaluation and selection of appropriate mitigation measures will be documented in a Mitigation Action Plan.

2.4 MITIGATION ACTION PLAN

Several commenters expressed concern about mitigation measures to minimize potential impacts of the SNS on research activities in the Walker Branch Watershed on the Oak Ridge Reservation. One commenter suggested specific mitigation measures.

If the decision in the ROD is to construct the SNS, DOE would prepare a MAP for the selected site. The MAP would present details concerning the planning, implementation, and monitoring of the mitigation measures designed to minimize potential impacts associated with construction and operation of the SNS. DOE would complete the MAP prior to the start of construction, and the document would be made available to the public for review and comment.

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Chapter 3
Public Comments

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CHAPTER 3

PUBLIC COMMENTS

The Notice of Availability (NOA) (63 FR 71285) for the DEIS was published in the *Federal Register* on December 24, 1998. This initiated a 45-day public review and comment period that ended on February 8, 1999. During the review and comment period, DOE held public hearings on the DEIS in the vicinity of each proposed site for the SNS. Hearings were held at the following locations on these dates: Oak Ridge, Tennessee (January 28, 1999); Los Alamos, New Mexico (January 19, 1999); Argonne, Illinois (January 25, 1999); and Upton, New York (January 21, 1999). At each hearing, attendees were given an opportunity to submit oral or written comments to DOE. Transcripts of the proceedings at these hearings were prepared by experienced court reporters.

Throughout the review and comment period, reviewers were given the option of submitting comments to DOE by U.S. mail or courier service, toll-free telephone, facsimile, or electronic mail. To accommodate as many commenters as possible, comments were accepted after closure of the formal review and comment period. The last comment was received on April 6, 1999. DOE considered all late comments.

3.1 COMMENT CATEGORIES

The complete texts of the original comment messages received by DOE are presented in this chapter. They are printed two original letter-size sheets per page and are presented by source category. The source categories and their order of presentation are shown in Section 3.2.

Complete transcripts of the public hearings and written attachments to the transcripts follow the comment messages. A typical transcript attachment would be a set of notes used by a respondent in making oral comments at the hearings. These attachments do not include the DOE comment forms distributed at the public hearings because respondents had the option of mailing the completed forms to DOE sometime after the hearings or turning them in at the hearings. All of these completed forms are treated as comment messages in this chapter.

3.2 COMMENT CODE

The comment messages, hearing transcripts, and hearing transcript attachments are coded to indicate major comment source categories, individual commenters, and their discrete comments. The primary purpose of these comment codes is to relate the DOE comment responses in Chapter 4 back to the precise locations where these comments were made in the texts of the comment messages, hearing transcripts, and hearing transcript attachments. This section describes the system used to code the comments.

The comment coding system is described at this point in the appendix because certain elements of the system relate to the organization, layout, and labeling of the comment messages, hearing transcripts, and hearing transcript attachments presented in this chapter. This system also describes how the many separate comments in the texts of these documents are marked and numbered for individual identification and tracking. Although the complete comment codes are not used in this chapter, they are used extensively in Chapter 4.

Each comment code consists of an initial capital letter followed by two numbers. All capital letters and numbers are separated by hyphens. An example comment code would be F-1-5.

The initial capital letter in the comment code designates the comment source category. The following is a list of the capital letters used and their corresponding comment source categories:

F	Federal Agency
S	State Government
M	Municipal and Local Government
O	Organization
P	Private Citizen
H	Public Hearing

The first code number after the initial capital letter designates a specific comment message, hearing transcript, or hearing transcript attachment. These sequentially assigned numbers are often repeated among the comment source categories. However, they function as effective discriminators by working in tandem with the capital letters.

The last number in the comment code designates a specific comment within the text of each comment message, hearing transcript, or hearing transcript attachment. In this chapter, vertical side bars along the left margins of comment document pages are used to indicate discrete comments. Each vertical bar is accompanied by the appropriate last number in the comment code.

The following are examples of how the comment code works:

- Comment Code F-1-5 refers to a Federal agency source, Comment Message 1, fifth separate comment in the message.
- Comment Code H-3-7 refers to a public hearing source, the hearing transcript designated with Code Number 3, seventh separate comment in the transcript.
- Comment Code H-9-3 refers to a public hearing source, the hearing transcript attachment designated with Code Number 9, third separate comment in the attachment.

3.3 LIST OF COMMENTERS AT THE PUBLIC HEARINGS

This section contains a list of the persons who provided oral comments at the public hearings on the DEIS. If a commenter was representing a government agency, company, or organization, the name of this entity is listed with the person's name. Commenters who did not wish to reveal their identities are listed as "anonymous."

The following people provided oral comments at the public hearings:

Oak Ridge Morning Session

Walt Brown, Mayor of Oak Ridge
Wolf Naegeli, Foundation for Global Sustainability

Oak Ridge Afternoon Session

Barbara Walton
Daniel Axelrod
Fred Maienschein
Lorraine Sigal
Josh Johnson
Susan Gawarecki, Local Oversight Committee
Anonymous

Los Alamos Morning Session

No public comments

Los Alamos Afternoon Session

Tom Switlik

Argonne Afternoon Session

No public comments

Argonne Evening Session

Russell Zizek

Brookhaven Afternoon and Evening Sessions

No public comments

3.4 PUBLIC COMMENTS ON THE DEIS

This section contains an index of comments on the DEIS and the original texts of the comments as they appear in the comment messages, hearing transcripts, and hearing transcript attachments received by DOE.

3.4.1 Index of Comments

An index of the oral and written comments on the DEIS is presented in this section. It is designed to facilitate use of the comment text in Section 3.4.2. The index is organized according to the comment source categories already discussed in Section 3.2. In the index, commenters from government agencies, companies, and organizations are identified by affiliation rather than the individual names of the commenters. However, their names are present on the comment documents presented in Section 3.4.2. Private citizens who submitted written comments or public hearing attachments are identified by name. Each index listing is accompanied by a page number indicating the location of the comment text in Section 3.4.2.

**Comment Source
Category/Code
Number/Commenter**
**Appendix A
Page Number**

Federal Agencies

1. U.S. Environmental Protection Agency (EPA)..... A-25

State Government

1. Illinois Department of Agriculture A-29
2. Tennessee Historical Commission A-29
3. Illinois Historic Preservation Agency..... A-30
4. Illinois Department of Natural Resources..... A-30
5. Tennessee Department of Environment and Conservation (TDEC) A-31
6. Tennessee Commission of Indian Affairs..... A-36
7. New Mexico Environment Department..... A-37
8. New York State Department of Environmental Conservation..... A-40

Municipal & Local Government

1. Oak Ridge Environmental Quality Advisory Board..... A-41
2. Oak Ridge Office of the Mayor..... A-43
3. Oak Ridge Reservation Local Oversight Committee A-44
4. County of Loudon A-46
5. Knox County Executive..... A-47
6. Office of the Mayor, Knoxville, Tennessee A-47
7. Office of the County Executive, Roane County..... A-48
- Blount County Government A-48

Organizations

1. Citizen's Advisory Panel/Local Oversight Committee (CAP/LOC)..... A-49
2. Rio Arriba Environmental Health Partnership A-50
3. Knoxville Area Chamber Partnership..... A-50
4. Blount County Chamber of Commerce A-51

Private Citizens

1. Wood, Tom A-51
2. Moses, David L A-52
3. Naegeli, Wolf A-58
4. Walton, Barbara A-59
5. Davis, Vickie..... A-60
6. Bonneau, Bonnie A-60

Hearing Transcripts and Attachments

1. Public Hearing Transcript – Oak Ridge Afternoon Session	A-63
2. Public Hearing Transcript – Oak Ridge Evening Session	A-83
3. Public Hearing Transcript Attachment 1	A-99
4. Public Hearing Transcript – Los Alamos Afternoon Session	A-103
5. Public Hearing Transcript – Los Alamos Evening Session	A-117
6. Public Hearing Transcripts – Argonne Afternoon and Evening Sessions	A-129
7. Public Hearing Transcript – Brookhaven Afternoon Session	A-153
8. Public Hearing Transcript – Brookhaven Evening Session	A-165

3.4.2 Comment Messages, Hearing Transcripts, and Hearing Transcript Attachments

The subsequent pages contain the texts of the comment messages, hearing transcripts, and hearing transcript attachments received by DOE. The order of presentation is the same as that indicated by the index in Section 3.4.1. As previously indicated in Section 3.2, the specific comments on the DEIS are shown with numbered vertical bars along the left margins of each comment document page.

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Comment Messages

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